



PORTLAND PARKS & RECREATION

Healthy Parks, Healthy Portland



George Middle School Tree Walk

LEARNING LANDSCAPES



George Middle School Tree Walk 2015 Learning Landscapes

Site data collected in Summer 2014.

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Cover photos (from top left to bottom right):

- 1) Fall color and newly planted trees at George Middle School.
- 2) The fruits of an American hophornbeam.
- 3) A large ginkgo displaying brilliant autumn leaves.
- 4) A maturing common hackberry tree.
- 5) The foliage and fruit of a bald cypress.
- 6) Students at George Middle School plant trees.
- 7) This huge sycamore maple is a Portland Heritage Tree.
- 8) A bright red young *Nyssa sylvatica*.

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The Learning Landscapes Program



George Middle School

The George Middle School Learning Landscape was initiated in November 2011, with a planting of eight trees. This tree walk identifies trees planted as part of the Learning Landscape as well as other interesting specimens at the school.

What is a Learning Landscape?

A Learning Landscape is a collection of trees planted and cared for at a school by students, volunteers, and Portland Parks & Recreation (PP&R) Urban Forestry staff. Learning Landscapes offer an outdoor educational experience for students, as well as environmental and aesthetic benefits to the school and surrounding neighborhood. Learning Landscapes contain diverse tree species. They are designed to teach students about biology and urban forestry issues, but can also be used to teach geography, writing, history and math, and to develop leadership skills.

Community Involvement

Community-building is crucial to the success of Learning Landscapes. PP&R works with Urban Forestry Neighborhood Tree Stewards, teachers, parents, students, and community members to design, plant, establish and maintain these school arboreta. PP&R facilitates this collaboration by working with the school district, neighborhood, students and teachers to create landscapes that meet the need of the individual school community.

By involving students and neighbors in the tree planting, the community has ownership of the trees and a tangible connection to their school.

Tree Planting Experience

Learning Landscapes are planted by the school's students under the mentorship of middle or high school students and volunteers. On planting day, tree planting leaders teach students the benefits of urban trees, form and function of trees, and tree planting techniques. This leadership aspect of Learning Landscapes gives older students and volunteers the opportunity to connect with their peers, build confidence, and develop public speaking skills. Involving students and neighbors in the tree planting fosters community ownership of the trees and builds a tangible connection between school and neighborhood. This helps ensure a high tree survival rate by reducing vandalism and encouraging ongoing stewardship of the school's trees.

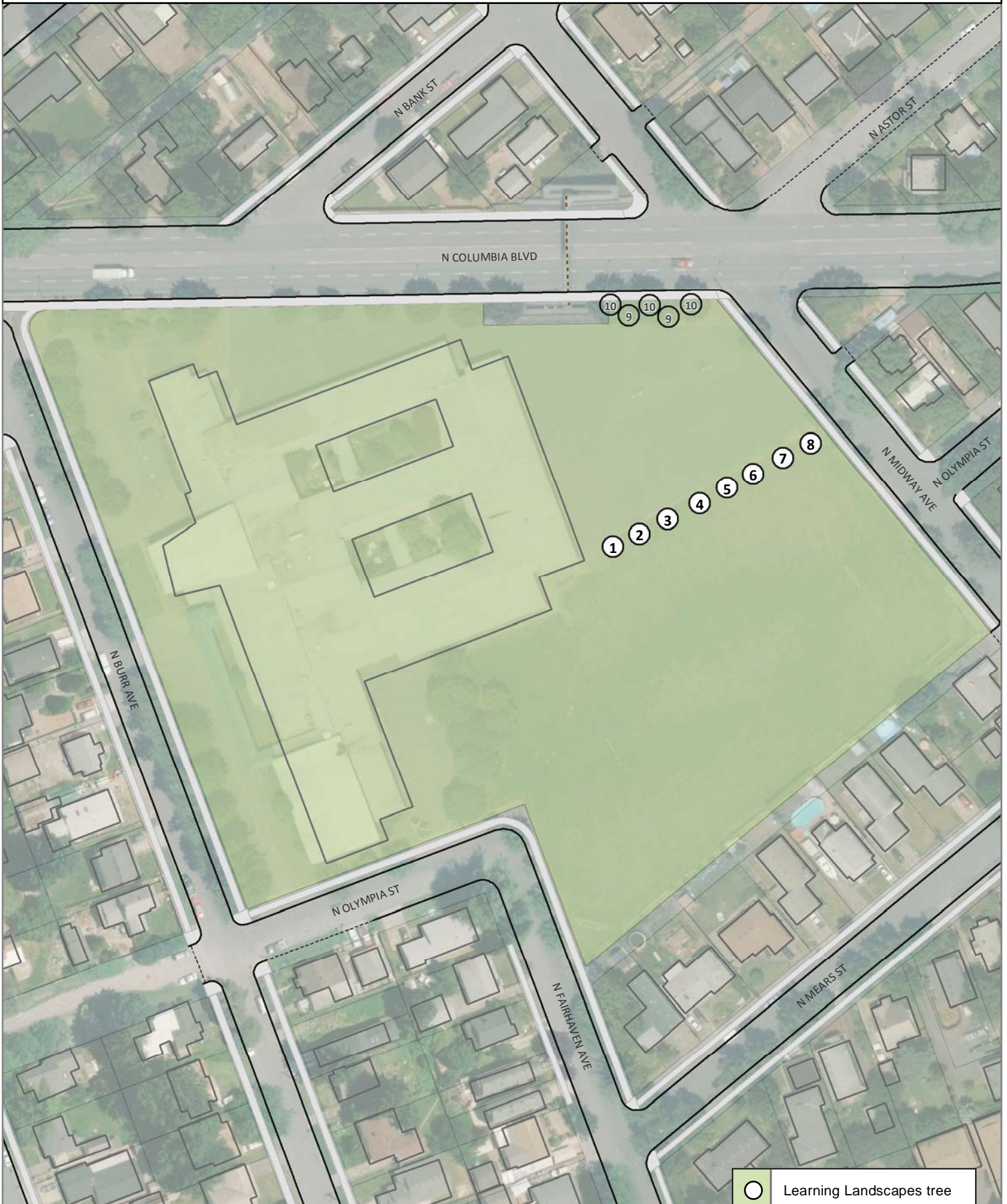
Continued Hands-on Learning Opportunities

Once planted, Learning Landscapes are used by teachers and parents for service and leadership projects. Students and teachers continue to build projects around the trees with opportunities to water, prune, weed and mulch. These dynamic landscapes change year after year, depending on student and teacher interests, as new trees are planted and added to the collection.

How can I get involved?

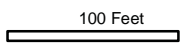
Visit <http://www.portlandoregon.gov/parks/learninglandscapes> for volunteer opportunities, to view more maps, and to learn how to plan a Learning Landscape in your community.

George Middle School Tree Walk



Learning Landscapes

<http://portlandoregon.gov/parks/learninglandscapes>



	Learning Landscapes tree
	other tree

George Middle School Tree Walk

Tree #	Common Name	Scientific Name
1	American hophornbeam	<i>Ostrya virginiana</i>
2	black tupelo	<i>Nyssa sylvatica</i>
3	common hackberry	<i>Celtis occidentalis</i>
4, 5	ginkgo	<i>Ginkgo biloba</i>
6	common hackberry	<i>Celtis occidentalis</i>
7	black tupelo	<i>Nyssa sylvatica</i>
8	American hophornbeam	<i>Ostrya virginiana</i>
9	bald cypress	<i>Taxodium distichum</i>
10	sycamore maple	<i>Acer pseudoplatanus</i>

Tree Facts, A to Z

American hophornbeam, *Ostrya virginiana*

Origin: North America - eastern USA

Pyramidal when young, this deciduous broadleaf tree becomes more rounded as it matures. Typically grows 25-40' in cultivation. Dark green, 2-5" long leaves are serrated and have pairs of faint veins extending on each side of the leaf midrib. Yellow-brown male catkins appear in threes at the end of the branches in spring. Nutlets are held in hop-like, chartreuse-colored chains 2-3" long covered in thin hairs. Tolerates full sun if kept well watered, otherwise may scorch in summer. Grayish brown bark with age becomes rough and patchy.



bald cypress, *Taxodium distichum*

Origin: North America - From eastern Texas to Florida, reaching north to Delaware and southern Illinois

A deciduous conifer growing upright to 100' or more. Needles are soft, emerging light green. They are ½ "to

¾" long and turn russet-orange in autumn. Spherical cones are about an inch in diameter. Bark on older trees is reddish-brown and fibrous. The official state tree of Louisiana, bald cypress is synonymous with the bayous. Its range, however, extends from east Texas into southern Illinois and along the eastern seaboard to Delaware, usually in swamps.

Despite being able to survive in waterlogged soils, bald cypress also grow well in drier soils and makes a fine street tree. Because the wood is durable, bald cypress was heavily logged for water tanks, ships, flooring, greenhouses, shingles and laundry equipment. Before the Ice Ages, these trees were widespread across the Northern Hemisphere but died out everywhere except the eastern U.S. Bald cypress seeds are eaten by wild turkeys, wood ducks, evening grosbeaks, squirrels and some waterfowl and wading birds.



black tupelo, *Nyssa sylvatica*

Origin: North America - eastern USA from eastern Texas and eastern Missouri across the South and north to New York, New England and southern Ontario, Canada

Black tupelo is an 80' tall broadleaf deciduous tree native to the eastern United States. The leaves are smooth and long (up to 6"), emerging as clusters and twisting at different angles from the ends of branches.

Trees are dioecious, with males and females occurring on different plants. A cluster of blue berries (smaller than ½") emerge from the end of the leaf clusters. These flowers and fruits are important food sources for bees and birds. The leaves turn from green to fiery red and yellow in autumn. The berries are said to taste bitter to humans but are an important food source for birds. This species likes wet habitats and is being planted more frequently as a street tree in Portland, especially in bioswales.



common hackberry, *Celtis occidentalis*

Origin: North America - from the Great Plains east to the Atlantic seaboard as far south as northern Georgia and east-central Texas

Hackberry is an alternate-branching, deciduous tree growing 50–80' tall. The leaves are 2" to 4" long, pointed and toothed with three main veins branching out at an uneven base. Young bark is smooth and light gray, but it soon develops corky warts and abundant warty ridges.



It bears numerous sweet red then purple pea-sized berries that birds love and supports a wide range of galls and mites on the foliage. The hackberry is closely related to elms, but is resistant to Dutch elm disease. The canopy spreads wide like an elm, but is more "O"-shaped rather than "V"-shaped. This tree thrives in towns and cities, but is frequently referred to as "the unknown tree," because its values are understated compared to other majestic urban trees. The name "hackberry" is thought to derive from *bagberry*, a Scottish name for a cherry species.

ginkgo, *Ginkgo biloba*

Origin: Asia - China

Ginkgo is a pyramidal to rounded deciduous tree growing up to about 100' tall. The bark has vertical scales, becoming deeply furrowed in maturity. The branches are alternate with leaves emerging from prominent ½" long nodes along the stem.



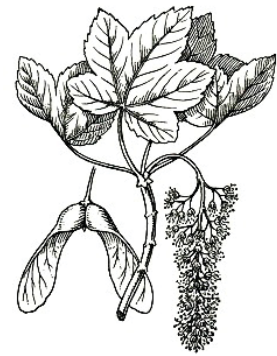
Each node displays a whorl of approximately 5–7 fan-shaped leaves that flow upwards or towards the ground, giving the ginkgo

its nickname "maidenhair tree." There are separate male and female trees. The female tree produces an edible fruit about ¾" long, which has been described as "nature's stink bomb," with an assaulting stench that's often compared to rancid butter, funky cheese, wet dog, or vomit due to the butyric acid in the fruit. Only one species of ginkgo tree remains in this ancient tree family that dominated forests millions of years ago. The tree was at one point thought to be extinct, and it is rumored that Chinese monks saved some of the last ginkgo trees from a large fire. Ginkgos are often planted in cities for their unique features and hardiness to urban conditions.

sycamore maple, *Acer pseudoplatanus*

Origin: Europe - from western Europe (but not the British Isles) east to Poland, the Balkans, Greece, Ukraine, southern Russia and Georgia

Sycamore maple is the largest of all the maples, growing up to 120' tall. The bark is gray-green and smooth, becoming plated with maturity. Leaves are up to 8" long, five lobed (with the two lobes closest to the base sometimes melding into the other lobes), thick and tough, with prominent veins. The leaves resemble



those of a sycamore tree. Sycamore maple has been widely cultivated, with leaf shapes, colors, and teeth varying from one variety to another. Some varieties are solid green, some are purple with a red underside. Still others are variegated or partially variegated with yellow or pink speckles. The tree is native to Europe and can tolerate alpine environments, extending its range to Scandinavia and Scotland. The wood is devoid of resin or tastes which has made it ideal for use in kitchen implements. The wood also dyes well, which made it a popular source for children's toys and beads. Sycamore maple is very resistant to pollution, salt spray, and wind. It aggressively reseeds.

